

## hoppy saison

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **29**
- SRM **4.5**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **15.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.6 liter(s)**
- Total mash volume **14.9 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **11.6 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **7.6 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	1.4 kg (41.2%)	80.5 %	2
Grain	Briess - Pale Ale Malt	1.3 kg (38.2%)	80 %	7
Grain	Briess - Wheat Malt, White	0.2 kg (5.9%)	85 %	5
Grain	Briess - Vienna Malt	0.2 kg (5.9%)	77.5 %	7
Grain	Briess - Munich Malt 10L	0.1 kg (2.9%)	77 %	20
Grain	Acid Malt	0.1 kg (2.9%)	58.7 %	6
Sugar	glukoza	0.1 kg (2.9%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	20 min	12 %
Boil	El Dorado	10 g	10 min	15 %
Boil	Citra	10 g	10 min	12 %
Whirlpool	Mosaic	10 g	50 min	10 %
Whirlpool	Citra	10 g	50 min	12 %
Whirlpool	El Dorado	10 g	50 min	15 %
Whirlpool	WAI-ITI	10 g	50 min	4.1 %

Dry Hop	Citra	10 g	3 day(s)	12 %
Dry Hop	El Dorado	10 g	3 day(s)	15 %
Dry Hop	Mosaic	10 g	3 day(s)	10 %
Dry Hop	WAI-ITI	10 g	3 day(s)	4.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM26 Belgijskie Pagórki	Ale	Liquid	100 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Spice	curacao	20 g	Boil	15 min
Fining	mech irlandzki	10 g	Boil	15 min
Spice	orange peel	15 g	Boil	15 min